



December 22, 2008

Charles L.A. Terreni
Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of November 2008.

Sincerely,

Len S. Anthony (by dhs)

Len S. Anthony
General Counsel
Progress Energy Carolinas, Inc.

LSA/dhs
Enclosures
45612

c: John Flitter (ORS)

November 2008

The following units had no off-line outages during the month of November:

Harris Unit 1

Mayo Unit 1

Roxboro Unit 2

Roxboro Unit 4

Brunswick Unit 1

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:35 on November 19, and returned to service at 12:00 on November 26, a duration of 156 hours and 25 minutes. The unit experienced an automatic shutdown shortly after the planned outage concluded.
- B. Cause: Reactor Recirculation Pump Seal
- C. Explanation: The unit was taken out of service for a scheduled maintenance outage to address and correct leakage on the 1A Reactor Recirculation Pump (RRP) Seal.
- D. Corrective Action: Maintenance activities, including repairs to correct the Reactor Recirculation Pump Seal leakage, were conducted.

Full Forced Outage

- A. Duration: While synchronizing to the grid following a scheduled maintenance outage to repair the 1A Reactor Recirculation Pump seal (see above; unit was on the grid for less than 1 minute), the unit experienced an automatic shutdown at 12:00 on November 26, and was returned to service at 14:57 on November 29, a duration of 74 hours and 57 minutes.
- B. Cause: Electro-Hydraulic Control System Malfunction
- C. Explanation: While synchronizing to the grid following the scheduled outage to repair the Reactor Recirculation Pump seal leakage, the unit automatically shut down due to a malfunction of the Electro-Hydraulic Control (EHC) system. Further investigation revealed that the malfunction was caused by a circuit card in the EHC that provides signals to the turbine control valves. The card was not properly seated, and this rendered the EHC pressure regulator unable to control turbine valves once the main generator was synched to the grid. Consequently, a low pressure condition was created, which resulted in the closing of the Main Steam Isolation Valves and an automatic shutdown of the unit.
- D. Corrective Action: Corrective maintenance activities included the replacement of the circuit card that created the EHC malfunction. Testing was done to ensure that the card was well-seated, and that it could properly control the valves. Additionally, all the other EHC circuit cards were inspected to verify that they were properly seated. Upon completion of repairs and inspections, the unit was returned to service.

Brunswick Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 11:17 on November 9, and was returned to service at 3:15 on November 17, a duration of 183 hours and 58 minutes.
- B. Cause: Failed Open Safety Relief Valve
- C. Explanation: On November 9, plant operators manually shut down the unit, per Abnormal Operation Procedure, due to a failed open Safety Relief Valve (SRV). SRV's provide overpressure protection for the reactor vessel. They can be opened automatically when they reach a pressure set-point, or they can be remotely opened. In this case, an SRV opened without an actual overpressure signal or without a manual demand signal. SRV's discharge steam to the suppression pool. Therefore, the unit was manually shut down when the SRV failed to respond to attempts to close it, and suppression pool temperature limits were being approached.
- D. Corrective Action: Repairs to the unit included the replacement of the failed SRV pilot assembly. As a result of inspections and extent of condition assessments, other SRV pilot assemblies were replaced. Additional maintenance activities carried out during the outage included repairs to turbine by-pass valves and control rod adjustments. Upon completion of maintenance and repair work, the unit was returned to service.

Robinson Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:23 on September 26 for a scheduled refueling and maintenance outage, and was returned to service at 23:29 on November 7. The unit was offline for 168 hours and 29 minutes during the month of November. The entire outage duration was 1,032 hours and 6 minutes.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections were carried out during this outage.
- D. Corrective Action: Upon completion of planned outage activities, including refueling, required maintenance and other inspections, the unit was returned to service.

Full Forced Outage

- A. Duration: The unit was taken out of service at 5:51 on November 17, and remained offline for the remainder of the month. The unit was offline for 330 hours and 9 minutes during the month of November.
- B. Cause: Excessive Turbine Vibration
- C. Explanation: Following return to service from the planned refueling outage, turbine vibrations were higher than expected, but were capable of being managed through operator actions. Turbine vibrations increased beyond operator control, and the operators manually shut down the unit on November 17, so that maintenance and troubleshooting activities could be performed.
- D. Corrective Action: Corrective maintenance activities, including replacement of the hydrogen seals on the main generator, were in progress through the end of November.

Roxboro Unit 3

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:20 on November 8, and was returned to service at 14:00 on November 9, a duration of 14 hours and 40 minutes.
- B. Cause: Main Steam Lead Drain Repair
- C. Explanation: While in reserve shutdown, the unit was taken offline to repair a leak in the main steam lead drain.
- D. Corrective Action: Maintenance activities were conducted to repair the leak in the main steam lead drain. Upon completion of the repairs, the unit was returned to service, but was not in demand and remained in reserve shutdown.

	Month of November 2008		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	452,952 MWH		7,019,080 MWH		2
Capacity Factor	66.98 %		85.19 %		
Equivalent Availability	65.60 %		84.03 %		
Output Factor	98.62 %		100.31 %		
Heat Rate	10,411 BTU/KWH		10,398 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	123,816	18.31	1,148,956	13.94	3
Partial Scheduled	15,605	2.31	73,926	0.90	4
Full Forced	93,206	13.78	93,206	1.13	5
Partial Forced	0	0.00	30,027	0.36	6
Economic Dispatch	0	0.00	31	0.00	7
Possible MWH	676,298		8,239,392		8

* See 'Notes for Nuclear Units' filed with the January 2008 report.

** Gross of Power Agency

	Month of November 2008		Twelve Month Summary		See Notes*
MDC	937 MW		937 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	491,759 MWH		7,858,783 MWH		2
Capacity Factor	72.79 %		95.48 %		
Equivalent Availability	72.22 %		95.11 %		
Output Factor	97.73 %		99.27 %		
Heat Rate	10,569 BTU/KWH		10,598 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	3,471	0.51	21,622	0.26	4
Full Forced	172,377	25.52	314,426	3.82	5
Partial Forced	11,850	1.75	95,551	1.16	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	675,577		8,230,608		8

* See 'Notes for Nuclear Units' filed with the January 2008 report.

** Gross of Power Agency

	Month of November 2008		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	900 MW		900 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	668,900 MWH		7,809,304 MWH		2
Capacity Factor	103.08 %		98.78 %		
Equivalent Availability	100.00 %		97.00 %		
Output Factor	103.08 %		101.67 %		
Heat Rate	10,666 BTU/KWH		10,798 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	0	0.00	8,129	0.10	4
Full Forced	0	0.00	224,235	2.84	5
Partial Forced	0	0.00	8,939	0.11	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	648,900		7,905,600		8

* See 'Notes for Nuclear Units' filed with the January 2008 report.

** Gross of Power Agency

	Month of November 2008		Twelve Month Summary		See Notes*
	<hr/>		<hr/>		<hr/>
MDC	710 MW		710 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	141,211 MWH		5,467,111 MWH		2
Capacity Factor	27.59 %		87.66 %		
Equivalent Availability	27.35 %		83.89 %		
Output Factor	89.44 %		103.75 %		
Heat Rate	12,342 BTU/KWH		10,769 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	<hr/>	<hr/>	<hr/>	<hr/>	
Full Scheduled	119,623	23.37	732,791	11.75	3
Partial Scheduled	17,819	3.48	37,390	0.60	4
Full Forced	234,407	45.79	234,407	3.76	5
Partial Forced	48	0.01	261	0.00	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	511,910		6,236,640		8

* See 'Notes for Nuclear Units' filed with the January 2008 report.

	Month of November 2008		Twelve Month Summary		See Notes*
MDC	742 MW		742 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	384,490 MWH		4,105,038 MWH		2
Capacity Factor	71.87 %		62.98 %		
Equivalent Availability	99.44 %		95.36 %		
Output Factor	71.87 %		65.02 %		
Heat Rate	10,369 BTU/KWH		10,687 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	81,830	1.26	3
Partial Scheduled	2,880	0.54	90,179	1.38	4
Full Forced	0	0.00	79,381	1.22	5
Partial Forced	136	0.03	50,846	0.78	6
Economic Dispatch	147,477	27.57	2,109,709	32.37	7
Possible MWH	534,982		6,516,996		8

* See 'Notes for Fossil Units' filed with the January 2008 report.

** Gross of Power Agency

	Month of November 2008		Twelve Month Summary		See Notes*
MDC	671 MW		668 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	416,518 MWH		4,650,276 MWH		2
Capacity Factor	86.09 %		79.21 %		
Equivalent Availability	97.68 %		91.79 %		
Output Factor	86.09 %		86.45 %		
Heat Rate	8,473 BTU/KWH		9,151 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	330,713	5.63	3
Partial Scheduled	8,316	1.72	29,837	0.51	4
Full Forced	0	0.00	105,704	1.80	5
Partial Forced	2,908	0.60	17,615	0.30	6
Economic Dispatch	56,049	11.59	736,111	12.54	7
Possible MWH	483,791		5,870,640		8

* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of November 2008		Twelve Month Summary		See Notes*
MDC	705 MW		705 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	378,572 MWH		4,076,990 MWH		2
Capacity Factor	74.48 %		65.84 %		
Equivalent Availability	93.46 %		89.51 %		
Output Factor	76.83 %		70.81 %		
Heat Rate	10,345 BTU/KWH		11,203 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	10,340	2.03	425,444	6.87	3
Partial Scheduled	4,906	0.97	88,810	1.43	4
Full Forced	0	0.00	4,559	0.07	5
Partial Forced	18,015	3.54	130,613	2.11	6
Economic Dispatch	96,472	18.98	1,466,304	23.68	7
Possible MWH	508,305		6,192,720		8

* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of November 2008		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	721 HOURS		8,784 HOURS		
Net Generation	388,985 MWH		4,198,384 MWH		2
Capacity Factor	77.29 %		68.48 %		
Equivalent Availability	98.68 %		94.60 %		
Output Factor	77.29 %		71.57 %		
Heat Rate	10,530 BTU/KWH		10,520 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	121,765	1.99	3
Partial Scheduled	0	0.00	117,848	1.92	4
Full Forced	0	0.00	21,813	0.36	5
Partial Forced	6,655	1.32	69,859	1.14	6
Economic Dispatch	107,618	21.38	1,601,563	26.12	7
Possible MWH	503,258		6,131,232		8

* See 'Notes for Fossil Units' filed with the January 2008 report.

** Gross of Power Agency

Plant	Unit	Current MW Rating	January 2007 - December 2007	November 2008	January 2008 - November 2008
Asheville	1	191	63.64	11.08	68.44
Asheville	2	185	73.17	78.32	64.46
Cape Fear	5	144	78.67	83.82	70.02
Cape Fear	6	172	72.38	76.20	61.85
Lee	1	74	62.15	85.91	61.97
Lee	2	77	62.47	72.63	50.70
Lee	3	248	66.38	0.00	37.03
Mayo	1	742	72.10	71.87	62.16
Robinson	1	176	74.63	66.08	66.01
Roxboro	1	369	78.01	0.00	72.89
Roxboro	2	671	80.06	86.09	77.98
Roxboro	3	705	74.37	74.48	65.66
Roxboro	4	698	62.40	77.29	70.09
Sutton	1	93	56.26	56.41	47.82
Sutton	2	102	63.19	62.03	56.79
Sutton	3	403	55.53	50.69	57.60
Weatherspoon	1	48	53.86	51.34	44.10
Weatherspoon	2	49	55.68	53.56	42.22
Weatherspoon	3	76	68.70	48.31	57.44
Fossil System Total		5,223	69.82	61.94	64.63
Brunswick	1	938	95.92	66.98	83.78
Brunswick	2	937	86.99	72.79	94.90
Harris	1	900	93.90	103.08	98.53
Robinson Nuclear	2	710	92.26	27.59	85.89
Nuclear System Total		3,485	92.25	69.84	91.01
Total System		8,708	78.79	65.10	75.19

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of $\geq 92.5\%$ during the 12 month period under review. For the test period April 1, 2008 through November 30, 2008, actual period to date performance is summarized below:

Period to Date: April 1, 2008 to November 30, 2008

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A = 18,178,380 MWH
B. Total number of hours during SCPSC test period	B = 5,857 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C = 3,485 MW
D. Reasonable nuclear system reductions (see page 2)	D = 2,473,271 MWH

A. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 = 101.2\%$

NOTE:

If Line Item E $> 92.5\%$, presumption of utility's minimum cost of operation.

If Line Item E $< 92.5\%$, utility has burden of proof of reasonable operations.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: April 1, 2008 to November 30, 2008

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	644,015	0	0	732,791	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	221,528	284,174	229,188	234,666	
Reasonable coast down power reductions (MWH)	0	0	0	9,720	
Reasonable power ascension power reductions (MWH)	42,427	31,466	0	17,819	
Prudent NRC required testing outages (MWH)	3,866	15,466	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	6,145	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	911,836	337,251	229,188	994,996	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,473,271